

CLAIMS

1. A method for producing a resin fine particle,
which comprises a step 1 of heating and/or
5 pressurizing a mixture of a resin and a fluid in which the
resin is not dissolved in a normal temperature and normal
pressure for making at least one component of the fluid
supercritical state or subcritical state and a step 2 of
10 decreasing the temperature of the fluid for releasing the
pressure.

2. A method for producing a resin fine particle,
which comprises a step 1 of air-tightly sealing a
mixture of a resin and a fluid in which the resin is not
15 dissolved in a normal temperature and normal pressure in a
pressure resistant container and heating the pressure
resistant container for making at least one component of
the fluid supercritical state or subcritical state and a
step 2 of quenching the pressure resistant container for
20 releasing the pressure.

3. The method for producing a resin fine particle
according to Claim 1 or 2,
wherein the fluid contains a substance that is
25 present in a liquid form at a normal temperature and normal
pressure.

4. The method for producing a resin fine particle
according to Claim 1 or 2,
30 wherein the fluid contains water and/or alcohol.

5. The method for producing a resin fine particle
according to Claim 1, 2, 3 or 4,
wherein the resin is a recycled one.

6. A resin fine particle,
which is obtained by the method for producing a resin
fine particle according to Claim 1, 2, 3, 4, or 5.

5 7. The resin fine particle according to Claim 6,
wherein the particle diameter is 1 μm or smaller.

8. The resin fine particle according to Claim 6 or 7,
wherein the CV value of the particle diameter is 5%
10 or lower.

9. The resin fine particle according to Claim 6, 7,
or 8,
wherein the sphericity is 1.25 or lower.

15 10. A polyolefin resin fine particle
which comprises a polyolefin resin having a weight
average molecular weight of 200,000 or higher.

20 11. The polyolefin resin fine particle according to
Claim 10,
wherein the weight average molecular weight of the
polyolefin resin is 1,000,000 or higher.

25 12. A polyolefin resin fine particle,
which comprises a polyolefin resin having an MI value
of 10 or lower.

13. The polyolefin resin fine particle according to
30 Claim 10, 11, or 12,
wherein the polyolefin resin contains neither a
surfactant nor a suspension stabilizer.

14. A polyester resin fine particle,
35 which comprises an un-crosslinked polyester resin.

15. The polyester resin fine particle according to Claim 14,

5 wherein the polyester resin contains neither a surfactant nor a suspension stabilizer.

16. An acrylic resin fine particle,
which contains neither a surfactant nor a suspension stabilizer.

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17. The acrylic fine particle according to Claim 16,
which contains neither a sulfonium salt nor a sulfate acid salt.

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18. The acrylic resin fine particle according to Claim 16 or 17,

wherein the acrylic resin is obtained by polymerizing poly(methyl methacrylate).